

REMARKS

In a third Office Action on the merits mailed August 25, 2003, the Examiner in charge of the application objected to Claim 20 as being of improper dependent form. Final rejections under §103 were imposed over Stanforth (U.S. 6,590,133) in view of Pisani (U.S. 5,931,773). The Examiner imposed the rejection and stated that the Applicants' prior arguments were moot in view of the new ground of rejection.

Applicants respectfully traverse the rejection. In addition, Applicants ask the Examiner to reconsider the finality of the rejections. Each issue is addressed separately below.

Propriety of Final Rejection

The Examiner states that the Applicants' amendment necessitated the new ground of rejection over Stanforth '133 and Pisani '773 and accordingly made this action final. Stanforth is newly cited in the present Office Action; Pisani was cited in the prior Office Action.

Applicants submit that a complete second Office Action on the merits should have included (but did not include) any rejections believed by the Examiner to be appropriate in view of this Stanforth patent. Stanforth was published on August 22, 2002, more than five months before the second Office Action was mailed. The Examiner, who assumed responsibility for the application before issuance of the second Office Action and also issued the third Office Action, is named as the Assistant Examiner on the face of the Stanforth patent. Stanforth was therefore known and available to the Examiner when the second Office Action was prepared.

The Examiner provides no basis for saying that the Applicants' amendments necessitated the new ground of rejection apart from stating simply that Stanforth teaches reducing lead availability under acidic conditions. Looking back at Applicants' prior response dated August 1, 2003, the only substantive claim amendment to the claims as filed recited an acidic pH range for the incubation step. If this is the basis for imposing the final rejection, Applicants point out that the claims pending after response to the first office action, silent as to the pH in the incubating step, would have embraced incubation under acidic conditions in the first instance.

Applicants maintain that the Examiner, aware of the '133 patent, should have at least noted the patent in the second Office Action and given the applicants an opportunity to

distinguish the patent, if only to avoid the procedural posture in which the Applicants now finds themselves. MPEP §707.07(g) requires an Examiner to avoid piecemeal examination “as much as possible” and states that an Examiner “ordinarily should reject each claim on all valid grounds available, avoiding, however, undue multiplication of references.” If Stanforth (with or without Pisani) was not cited as one of “all valid grounds available” in the second Office Action, then the Examiner must have considered Stanforth to be an “undue multiplication of references” duplicative of, or closely related to, Pisani. Especially in view of the nature of Applicants’ prior amendment, discussed *supra*, citation of Stanforth for the first time in the third Office Action can only then be considered an example of “piecemeal examination.” The Examiner cannot be permitted to prolong prosecution in this manner, while in so doing limiting the Applicants procedural options and increasing the prosecution costs to the Applicants.

Reconsideration and withdrawal of the finality are respectfully requested. If the Examiner is inclined to withdraw the finality, Applicants respectfully request the Examiner to communicate this to the undersigned well before the expiration of the six month statutory period for response so that the time and expense of filing a Notice of Appeal can be avoided. If the Examiner is not inclined to withdraw the finality, Applicants respectfully solicit an explanation as to how Applicants’ prior amendment necessitated the new ground of rejection, and why the citation of these references *seriatum* is appropriate.

Claim Objections

The objection to Claim 20 is noted. Claim 20 is canceled and the objection is overcome.

Rejections Under 35 U.S.C. §103

Claims 1-13 and 15-25 stand rejected under §103(a) as being unpatentable over Stanforth ‘133 in view of Pisani ‘773. The Applicants’ procedural objections to this rejection are noted above.

On the merits, the combination cannot render obvious the claims because (1) Stanforth includes no incubation step and (2) the curing step of Pisani does not cure that deficiency.

The Applicants claim an incubation step whereby a chemical reaction between the phosphate, chloride and metal forms metal chloropyromorphite, one of the least soluble lead

compounds known, as the application notes in paragraph [0009]. The only mention by Stanforth of a compound similar to the chloropyromorphite product (lead pyromorphite) appears in the background of the invention of the '133 patent and is unrelated to the Stanforth method. The Examiner specifically acknowledges that Stanforth does not teach incubating the soil after adding the various additives. Rather, Stanforth traps lead from soil or waste in the solid product formed while oxidizing ferrous iron to form a solid ferric iron oxidation product. Stanforth's use of ferrous iron plus an oxidation step is disfavored as it is more expensive and because, under some conditions, the iron oxidation product is not stable over the long term and can be reduced, thereby releasing lead back into the environment.

The absence of the incubation step from Stanforth is a striking difference from the claimed invention. Without the Applicants' incubation step, less expensive ferric compounds are ineffective and provide no opportunity for chemically incorporating the metal of interest into a solid, bioinaccessible material. Without the incubation, Stanforth took a different approach to metal treatment, namely trapping the metal in the product of an oxidation reaction. Notably, under the recited incubation conditions, Applicants can use either ferrous or ferric iron, but prefer ferric iron, for the reasons discussed. This fact cannot overcome the fact that Stanforth does not disclose an incubation step, regardless of the form of iron.

As noted, Pisani does not make up for the deficiency of Stanforth. There is simply no suggestion of any desire in Pisani for an incubation step to allow such a reaction to occur and, likewise, there is no mention in Stanforth of any need to prolong the reaction once the ferrous iron is oxidized, and thus no incentive to combine the cited patents. The Examiner reads too much into Pisani where he notes that "the soil and various additives are 'cured' or incubated for seven days." The Examiner, not Pisani, provided the term "incubated." Pisani describes curing to solidify Portland cement, but not for any other purpose.

Curing and incubation are distinct steps performed for distinct reasons. Curing is defined by hydration and solidification of Portland cement and other such materials. While solidification by curing is one approach to sequestering metals (not adopted by the present inventors), solidification is not to be confused or equated with the chemical formation of metal chloropyromorphite by incubation under suitable conditions.

For these reasons, Applicants believe that the pending claims stand in condition for allowance. Reconsideration is respectfully requested.

A petition for extension of time of one month is submitted herewith. Should any extension of time be due in this or any subsequent response, please consider this to be a

request for the appropriate extension of time and a request to charge the fee due to Deposit Account No. 17-0055. Should any other fee be due in connection with this or any subsequent response, please charge the fee to Deposit Account No. 17-0055.

Respectfully submitted,



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